

AMENDMENTS TO THE SPECIFICATION

Please replace the title paragraph on page 1 with the following replacement paragraph:

Method for optimizing the sequence of passive filter configuration in optical mux/demux devices for Wavelength Division Multiplex transmission systems and optical passive filter system obtained with that method.

Please replace paragraph 6 on page 1 with the following replacement paragraph:

For those reasons the span ~~length-length~~ of a CWDM (or more generally WDM) system may be limited by the channel having the worst insertion loss. The existing implementation approach of CWDM is derived from the general WDM communication technique developed in the erbium optical amplifier band (typically 1530-1565 nm), that is a symmetrical structure for the tap order of mux and demux optics, normally of the pass-band thin-film 3-port passive optical filter type, where the tap order of mux and demux are inverted.

Please replace paragraph 8 on page 4 with the following replacement paragraph:

The input data and parameters to be used in the procedure are the following:

- *Number of channels:* N

how many physical carriers (i.e. laser ~~wavelengths~~wavelengths) are used;

- *Set of wavelengths:* $\lambda_1 \dots \lambda_N$ [nm]

the ~~wavelengths~~wavelengths of the N carriers of the WDM system (typically following a given

transmission grid);

- *Fiber loss profile*: $F_{\text{loss}}(\lambda)$ [dB/km]

the loss profile curve; it depends on the typical value for the fiber used in the system, taking care of the junctions and the age effects;

- *Component insertion loss model*: $I_{\text{loss1}}, \Delta_{\text{att}}$ [dB]

they constitute the component model and represent the behaviour of a serial add/drop sequence of wavelengths. The figure 4 shows the case of a demux; for a mux the same insertion loss applies, but with inputs and outputs inverted.

Please replace paragraph 3 on page 6 with the following replacement paragraph:

~~With~~ With the above calculations, now it is possible to get the Sequence of channels inside the mux/demux.